

REMARKS

Claims 24-45 are pending and rejected in this application. Claims 24, 38-43 and 45 are amended; and claim 37 is cancelled hereby.

Responsive to the rejection of claims 24-45 under 35 U.S.C. § 112, first paragraph, Applicants have amended claim 24 to remove the language objected to by the Examiner. Accordingly, Applicants submit that claims 24-36 and 38-45 are now in condition for allowance, which is hereby respectfully requested.

Responsive to the rejection of claims 24-34, 36-39 and 41-45 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,230,743 (Nakamura et al.) in view of U.S. Patent No. 5,206,057 (Finnicum et al.), Applicants have amended claim 24 and cancelled claim 37 and submit that claims 24-34, 36, 38, 39 and 41-45 are now in condition for allowance.

Nakamura et al. disclose a process for producing pressure sensitive copying paper (Figs. 3 and 4) using a coating solution 1 containing microcapsules as a main component. A wind shielding plate 11 is placed upstream of the contact area so that the free fall of the material reaches web 9 without being disturbed (column 4, lines 8-55). The coating apparatus shown in Fig. 4 has a first coating apparatus and a second coating apparatus positioned subsequent to the first coating apparatus in the direction of flow of web 9. Web 9 goes through a first curtain and a second curtain flow as it proceeds in the direction of the arrow shown on web 9 of Fig. 4. The second coating layer is formed on the first coating layer while the first coating layer is in an undried state (column 7, lines 1-50).

Finnicum et al. show a device for applying a curtain coating for photographic film in which a multi-layer material passes through slots 14 and is dropped onto a web by gravity. The curtain 17 is bounded by sidewalls 19, 20 and a lateral wall 21. A valve mechanism permits a fluid to pressurize the space between the curtain 17 and the perimeter walls via a conduit 22 and

valve 23 in order to control where on the arc of the web the curtain 17 impinges. There is a space between the web and the walls (column 3, lines 20-52).

In contrast claim 24 as amended, recites in part:

said first applicator unit being positioned relative to said second applicator unit such that a spacing of about 100 mm to about 500 mm separates said first curtain and said second curtain.

(Emphasis added). Applicants submit that such an invention is neither taught, disclosed nor suggested by Nakamura et al., Finnicum et al. or any of the other cited references, alone or in combination, and includes distinct advantages thereover.

Nakamura et al. discloses a process for producing pressure sensitive copying paper including a coating solution that contains microcapsules of a main component. Finnicum et al. discloses a device for applying a curtain coating for photographic film in which a multi-layer material passes through slots and is dropped onto a web by gravity. The cited references fail to disclose a distance of about 100 mm to about 500 mm between the coatings and only refer to sequentially placing two coating devices relative to a moving film. The spacing is selected to allow an immobilization of the pre-coat on the paper web so that the application of the top coat does not impair or damage the pre-coat. Therefore, Nakamura et al., Finnicum et al. and any of the other cited references alone or in combination, fail to disclose, teach or suggest a first applicator unit being positioned relative to the second applicator unit such that a spacing of about 100 mm to about 500 mm separates the first curtain from the second curtain, as recited in claim 24.

Applicants' invention has distinct advantages in that the spacing of the two curtains allow for immobilization of the pre-coat prior to the application of the top coat and allow the application of the top coat to occur in a pressure controlled environment. Further, the wetting of the top coat on the pre-coat is improved. The use of a positive pressure between the first and second curtains

causes the pre-coat to be anchored in a superior manner of the moving material web and both curtains are stabilized, with the positive pressure reducing tendency for the material to flutter. If a vacuum is produced in the pressure controlled space the separation of the first application medium curtain from a guide doctor is accomplished. For all of the foregoing reasons, Applicants submit that claim 24, and claims 25-34, 36, 38, 39 and 41-45 depending therefrom, are now in condition for allowance, which is hereby respectfully requested.

Claim 35 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Nakamura et al. in view of Finnicum et al. and in further view of U.S. Patent No. 5,192,592 (Shay). However, claim 35 depends from claim 24, and claim 24 is now in condition for allowance for the reasons given above. Accordingly, Applicants submit that claim 35 is now in condition for allowance, which is hereby respectfully requested.

Claim 40 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Nakamura et al. in view of Finnicum et al. and in further view of U.S. Patent No. 5,136,970 (Saito et al.). However, claim 40 depends from claim 24, and claim 24 is now in condition for allowance for the reasons given above. Accordingly, Applicants submit that claim 40 is now in condition for allowance, which is hereby respectfully requested.

For the foregoing reasons, Applicants submits that the pending claims are definite and do particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Moreover, Applicants submit that no combination of the cited references teaches, discloses or suggests the subject matter of the amended claims. The pending claims are therefore in condition for allowance, and Applicants respectfully request withdrawal of all rejections and allowance of the claims.

In the event Applicants have overlooked the need for an extension of time, an additional extension of time, payment of fee, or additional payment of fee, Applicants hereby conditionally

petition therefor and authorizes that any charges be made to Deposit Account No. 20-0095,

TAYLOR & AUST, P.C.

Should any question concerning any of the foregoing arise, the Examiner is invited to telephone the undersigned at (260) 897-3400.

Respectfully submitted,

/Max W. Garwood/

Max W. Garwood
Registration No. 47,589

Attorney for Applicant

MWG/dc/bd

TAYLOR & AUST, P.C.
142 S. Main Street
P.O. Box 560
Avilla, IN 46710
Telephone: 260-897-3400
Facsimile: 260-897-9300

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